



# GEORGIA

DEPARTMENT OF NATURAL RESOURCES

## ENVIRONMENTAL PROTECTION DIVISION

### Air Quality - Part 70 Operating Permit Amendment

**Facility Name:** Albany Green Energy, LLC  
**Facility Address:** 508 Liberty Expressway, Southeast  
Albany, Georgia 31705, Dougherty County  
**Mailing Address:** 508 Liberty Expressway, Southeast  
Albany, Georgia 31705  
**Parent/Holding Company:** Albany Green Energy, LLC  
**Facility AIRS Number:** 04-13- 095-00109

In accordance with the provisions of the Georgia Air Quality Act, O.C.G.A. Section 12-9-1, et seq and the Georgia Rules for Air Quality Control, Chapter 391-3-1, adopted pursuant to and in effect under the Act, the Permittee described above is issued an amendment to the Part 70 Operating Permit for:

The retroactive application of Best Available Control Technology (BACT) for the Bottom Ash Handling System as an emissions source for the Circulating Fluidized Bed (CFB) Biomass Cogeneration Boiler (Boiler B004) and the modification of existing permit conditions, the addition of new permit conditions, and a change in the "Parent/Holding Company" name from Exelon Corporation to Albany Green Energy, LLC.

This Permit Amendment is conditioned upon compliance with all provisions of The Georgia Air Quality Act, O.C.G.A. Section 12-9-1, et seq, the Rules, Chapter 391-3-1, adopted and in effect under that Act, or any other condition of this Amendment and Permit No. 4911-095-0109-V-02-0. Unless modified or revoked, this Amendment expires simultaneously with Permit No. 4911-095-0109-V-02-0. This Amendment may be subject to revocation, suspension, modification or amendment by the Director for cause including evidence of noncompliance with any of the above; or for any misrepresentation made in App No. 428316 dated June 24, 2020; any other applications upon which this Amendment or Permit No. 4911-095-0109-V-02-0 are based; supporting data entered therein or attached thereto; or any subsequent submittal or supporting data; or for any alterations affecting the emissions from this source.

This Amendment is further subject to and conditioned upon the terms, conditions, limitations, standards, or schedules contained in or specified on the attached 5 pages.



Richard E. Dunn, Director  
Environmental Protection Division

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**PART 1.0 FACILITY DESCRIPTION****1.3 Overall Facility Process Description**

AGE operates a 1,037 million British thermal units per hour (MMBtu/hr) circulating fluid bed (CFB) Biomass Cogeneration Boiler (Emission Unit ID No. B004) previously associated with the Proctor and Gamble (P&G) Paper Products Plant. Approximately half of the steam produced is used to generate power for the electrical grid via a steam turbine. The other half is supplied to the adjacent P&G facility.

AGE's process begins with biomass (e.g., pre-chipped wood, bark, wood waste, peanut hulls, paper fines, etc.) being delivered to the site via trucks utilizing a privately paved road. Raw material trucks transfer biomass at a truck tipping station into a hopper that is enclosed on the sides to effectively shield the dumping operation from wind. From the bin, biomass is transferred using a series of enclosed conveyors and transfer points to the Storage Pile (Emission Unit ID No. SP-01). An operator lowers the conveyor arm near to the interface with the pile in order to minimize the drop distance and resulting emissions from the transfer. A small fraction of oversized biomass is screened and diverted through an enclosed electric Biomass Hogger (Emission Unit ID No. HOG) prior to transfer to storage.

Biomass from the storage pile is then fed to the CFB Biomass Cogeneration Boiler using a series of enclosed conveyors and transfer points. Excess biomass is stored in Biomass Silos Nos. 1 and 2 (Emission Unit ID Nos. BMS1 and BMS2) which are equipped with Bin Vent Fabric Filters (Control Device ID Nos. BMV1 and BMV2) for control of particulate matter (PM) emissions.

In addition to biomass, the CFB Biomass Cogeneration Boiler is also permitted to combust up to 350 MMBtu/hr of natural gas. The CFB Biomass Cogeneration Boiler is equipped with a baghouse (Control Device ID No. BH-1) for control of PM emissions, a selective non-catalytic reduction (SNCR) control device (Control Device ID No. SNCR-1) for control of nitrogen oxides (NO<sub>x</sub>) emissions, a sorbent injection scrubber (Control Device ID No. SI-1) for control of sulfur dioxide (SO<sub>2</sub>) emissions and hydrochloric acid (HCl) emissions, and an activated carbon injection system (Control Device ID No. ACI-1) for control of mercury emissions, as needed. The CFB Biomass Cogeneration Boiler also has a continuous oxygen trim system to increase fuel efficiency.

Sorbent is delivered onsite by trucks and pneumatically conveyed into a Sorbent Silo (Emission Unit ID No. SS1), where it is stored prior to being conveyed to the CFB Biomass Cogeneration Boiler sorbent injection scrubber, as needed. The Sorbent Silo is equipped with a vent filter (Control Device ID No. VF-2) for control of PM Emissions. The injection system is completely enclosed.

Oversized bottom ash drawn from the CFB Biomass Cogeneration Boiler is conveyed periodically through one of two pneumatic dampers and discharged to either closed-top or open-top storage bins (Emission Unit ID No. BAS). Open storage bins are covered after being filled to minimize fugitive dust emissions. The storage bins are then taken off site for disposal.

A Flyash Silo (Emission Unit ID No. FAS1) stores flyash collected by the cogeneration facility control systems (i.e., Baghouse BH-1). The Flyash Silo is equipped with a vent filter (Control Device ID No. VF-1) for control of PM emissions. The flyash exits the silo through an isolation slide gate and rotary seal valve into a paddle type ash conditioner to minimize fugitive dusting. Flyash is

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unloaded into trucks at an access bay beneath the silo for off-site use or disposal. Ash loadout occurs through a discharge chute into a waiting open-top truck that slowly advances through the loading bay to minimize drop emissions. The combined effects of the wind break and cautious loading operations minimize fugitive dust emissions. It should be noted that after filling, the truck is covered with a tarp prior to leaving the loadout area to minimize fugitive emissions.

Steam exiting the steam turbine is condensed via indirect heat transfer using a mechanical draft, counterflow wet Cooling Tower (Emission Unit ID No. CT-1). Cooling tower drift is minimized to 0.0005% of the design recirculation rate.

Ancillary to the CFB Biomass Cogeneration Boiler, AGE maintains a 1,080 horsepower (hp) diesel fuel-fired emergency engine for backup power to the boiler feedwater system (Emission Unit ID No. ES-GEN I), a 150 kilowatt (kW) diesel fuel-fired emergency generator for backup power to the steam turbine (Emission Unit ID No. ES-GEN2), and a 175 hp diesel fuel-fired firewater pump (Emission Unit ID No. ES-FP1).

**PART 3.0 REQUIREMENTS FOR EMISSION UNITS**

Note: Except where an applicable requirement specifically states otherwise, the averaging times of any of the Emissions Limitations or Standards included in this permit are tied to or based on the run time(s) specified for the applicable reference test method(s) or procedures required for demonstrating compliance.

**3.1. Emission Unit**

Emission Units		Applicable Requirements/Standards	Air Pollution Control Devices	
ID No.	Description		ID No.	Description
B004	Circulating Fluidized Bed Biomass Cogeneration Boiler – 1,037 MMBtu/hr	40 CFR 52.21 391-3-1-.02(2)(d) 391-3-1-.02(2)(g) 40 CFR 60, Subpart Da 40 CFR 63, Subpart DDDDD	BH-1 SNCR-1  SI-1 ACI-1	Baghouse Selective Non-Catalytic Reduction Sorbent Injection Activated Carbon Injection

**3.2 Equipment Emission Caps and Operating Limits**

New Condition

- 3.2.2 The Permittee shall not cause, let, suffer, permit or allow the emission of fugitive particulate matter from the Bottom Ash Disposal System in amounts exceeding 0.10 ton during any consecutive 12-month period.  
[40 CFR 52.21(j)]

**PART 4.0 REQUIREMENTS FOR TESTING**

**4.2 Specific Testing Requirements**

Modified Condition

- 4.2.8 The Permittee shall conduct a tune-up every five years as specified in 63.7540(a)(12) no more than 61 months after the previous tune-up of the Biomass Cogeneration Boiler (Source Code: B004) to demonstrate continuous compliance.  
[40 CFR 63.7515(d) and 40 CFR 63.7540(a)(12)]

**PART 6.0 OTHER RECORD KEEPING AND REPORTING REQUIREMENTS**

**6.1 General Record Keeping and Reporting Requirements**

- 6.1.7 For the purpose of reporting excess emissions, exceedances or excursions in the report required in Condition 6.1.4, the following excess emissions, exceedances, and excursions shall be reported:  
[391-3-1-.02(6)(b)1 and 40 CFR 70.6(a)(3)(i)]

[a. – No changes]

[b. – No changes]

- c. Excursions: (means for the purpose of this Condition and Condition 6.1.4, any departure from an indicator range or value established for monitoring consistent with any averaging period specified for averaging the results of the monitoring)

[i. and ii. – No changes]

Modified Condition

- iii. Any monthly inspection of a vent filter as required by Condition 5.2.4 revealing a problem that is not resolved in accordance with the Preventive Maintenance Program.

[iv. and v. – No changes]

**6.2 Specific Record Keeping and Reporting Requirements**

Modified Condition

- 6.2.9 The Permittee shall complete the 5-year tune-ups as specified in 40 CFR 63.7540(a).  
[40 CFR 63.7510(g)]

New Condition

- 6.2.18 The Permittee shall maintain a monthly and a consecutive 12-month period record of the ton of fugitive PM emission from the Bottom Ash Disposal System to demonstrate compliance with Condition 3.2.2. This record shall be maintained in a permanent form suitable for inspection and submission to the Division for at least five years from the date of record.  
[391-3-1-.02(6)(b)1 and 40 CFR 52.21(j)]